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| EXAMINER |
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SMITH, RICHARD A

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| ART UNIT | PAPER NUMBER |
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2859

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05/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/538,180

Applicant(s)

CORKER ET AL.

Examiner

R. Alexander Smith

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20050609
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Objections

1. Claims 2, 9, 12, 13 and 15 are objected to because of the following informalities:

Claims 2, 12, 13 and 15: In each of these claims the applicant has stated a limitation of "a leading edge" and/or "the leading edge." However, an edge is generally an intersection of two surfaces which does not appear to be appropriate based on the drawings. It appears to the examiner that a leading surface faces the oncoming traffic. Please review and correct accordingly if deemed appropriate.

Claim 9:

- (a) "said further beam" should be --said second beam-- in order to properly refer to its antecedent.
- (b) "said gantry beam" should be --said second beam-- in order to properly refer to its antecedent.

Claim 13: "blade-like members" spanning lines 2-3 is confusing because it is not clear as to what feature or characteristic of a member would be considered as blade-like.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described

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as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 726,348 to Richardson in view of US 5,474,016 to Haney.

Richardson discloses an over-height barrier, said barrier having a series of over-height engaging members (pencils, rods or bars b) mounted in closely-spaced relationship on a supporting beam (wire or rod 2 of figure 3) mounted above a railroad right of way such that each member hangs beneath the supporting beam for possible engagement, each member being pivotally mounted to the supporting beam at an upper end portion thereof such that each member can pivot about the axis of the supporting beam independently of the other members when struck by an over-height object, and a second beam (c) spaced from the supporting beam to be engaged by said members pivoting about the supporting beam when struck by an over-height object and to thereby cause the members to pivot in a return direction (figure 3 and the associated text),

the supporting beam is of circular cross section to provide a direct pivotal mounting for each blade (as shown in figures 2 and 3).

Furthermore Richardson discloses a gantry (figure 1) and a single pole mount (figure 2) with arm (10) wherein the barrier is mounted by chains beneath the gantry rod (bar, wire or rod a) or beneath the arm (arm or rod 10).

Richardson does not disclose

the supporting beam being mounted above a roadway, the over-height barrier being for vehicle height and wherein engagement of said members generates a warning noise,

wherein each of the engaging members is in the form of a blade with substantially flat parallel sides and having a leading edge facing the oncoming traffic, each blade is of downwardly tapering profile when viewed from the side,

the second beam against which the members impact comprises a gantry beam from which the supporting beam is rigidly mounted so that the supporting beam lies beneath the gantry beam, wherein the gantry beam is a tube of circular cross-section so that when impacted by the pivoting members the gantry beam will generate a loud resonant noise,

said further beam is a tube of circular cross-section so that when impacted by the pivoting members, the gantry beam will generate a loud resonant noise.

Haney discloses an over-height vehicle barrier mounted above a roadway and that generates a loud audible report upon striking that can be heard by the driver. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the

device, taught by Richardson, to be mounted above roadways and to modify the height engaging members to generate a warning noise, as taught by Haney, in order to increase the uses for the barrier and its marketability.

Haney further discloses that the support beam (60 in figures 4A-4B) is directly mounted to the second beam or gantry (42 and 44) and that these beams are of a size for roadway use and for supporting the over-height barrier, and that these beams are tubes of circular cross-section. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the gantry and over-height barrier, taught by Richardson, to be of a large tubular design for roadway mounting and to attach the support rod directly to the second beam or gantry, as suggested by the design of Haney, in order to properly support the device on roadways and in high winds, and in order to provide a more secure mounting of the barrier, i.e., by eliminating the chains 4, the mounting hardware and the special shaped bar c.

With respect to gantry beam and the second beam generating a loud noise upon impact by the pivoting member: This limitation would be inherent in the design when the gantry, taught by Richardson, is modified with the large hollow beam construction and direct support structure as suggested by Haney.

With respect to each of the engaging members is in the form of a blade with substantially flat parallel sides and having a leading edge facing the oncoming traffic, and each blade is of downwardly tapering profile when viewed from the side: These limitations, absent any criticality, is only considered to be an obvious modification of a shape of the engaging members because the courts have held that a change in shape or configuration, without any criticality, is

within the level of skill in the art as the particular shape claimed by Applicant is nothing more than one of numerous shapes that a person having ordinary skill in the art will find obvious to provide. In re Dailey, 149 USPQ 47 (CCPA 1976). In this case to provide a flat front striking surface that will be less likely to damage the vehicle upon impact and to provide the taper to reduce the weight which would also lessen the possible damage to the vehicle.

4. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson and Haney as applied to claims 1-4 and 7-9 above, and further in view of US 1,360,992 to Strimple.

Richardson and Haney together teach all that is claimed as discussed in the above rejections of claims 1-4 and 7-9 except for each member being mounted by an upper end portion by a rotary bearing arrangement.

Strimple discloses a barrier employing a rotary bearing type arrangement (21) spaced apart by spacers (22). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the eye (g) and rings (h), taught by Richardson, with a rotary bearing arrangement, as taught by Strimple, in order to provide a better control on the location, spacing and movement of the engagement members via elimination of side sway when impacted or side sway due to wind, etc.

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5. Claims 5, 6, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson and Haney as applied to claims 1-4 and 7-9 above, and further in view of US 2002/0178994 to Marin.

Richardson and Haney together teach all that is claimed as discussed in the above rejections of claims 1-4 and 7-9 except for the blades are each of a semi-rigid structure capable of deforming upon impact to absorb energy, the blades are composed principally of polyurethane, and each said member being composed of a material which is resiliently deformable when struck to absorb energy upon impact.

Marin discloses a device designed to be struck by vehicles, that absorbs energy and then resiliently returns back to its form after the impact, and that is principally of polyurethane in order to prevent breakage when impacted [see paragraphs 0006 and 0007]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify each of the engaging members, taught by Richardson, to be of a semi-rigid structure capable of deforming upon impact to absorb energy, to be of principally of polyurethane, and to be of a material which is resiliently deformable when struck to absorb energy upon impact, as suggested by the device of Marin, in order to prevent damage to both the engaging members and the vehicle upon impact, as taught by Marin, and to reduce maintenance costs for repair.

6. Claims 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson and Haney as applied to claims 1-4 and 7-9 above, and further in view of US 1,360,992 to Strimple and US 2002/0178994 to Marin.

Richardson and Haney together teach all that is claimed as discussed in the above rejections of claims 1-4 and 7-9 except for each member being mounted by an upper end portion by a rotary bearing arrangement and each said member being composed of a material which is resiliently deformable when struck to absorb energy upon impact.

Strimple discloses a barrier employing a rotary bearing type arrangement (21) spaced apart by spacers (22). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the eye (g) and rings (h), taught by Richardson, with a rotary bearing arrangement, as taught by Strimple, in order to provide a better control on the location, spacing and movement of the engagement members via elimination of side sway when impacted or side sway due to wind, etc.

Marin discloses a device designed to be struck by vehicles, that absorbs energy and then resiliently returns back to its form after the impact, and that is principally of polyurethane in order to prevent breakage when impacted [see paragraphs 0006 and 0007]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify each of the engaging members, taught by Richardson, to be of a material which is resiliently deformable when struck to absorb energy upon impact, as suggested by the device of Marin, in order to prevent damage to both the engaging members and the vehicle upon impact, as taught by Marin, and to reduce maintenance costs for repair.

Conclusion

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7. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related barriers, components or materials.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Alexander Smith whose telephone number is 571-272-2251. The examiner can normally be reached on Monday through Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'R. Alexander Smith', with a large, stylized initial 'R' and a long horizontal stroke extending to the right.

R. Alexander Smith
Primary Examiner
Technology Center 2800

RAS
April 30, 2007